

## **Implementation Issues**

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### **1. Is a PA "TSSDS" needed at all? If so, what should the end goal be?**

- Probably - the standards would probably work for organizations that have little in terms of an existing system and standards. Would consider it as a starting point for a client that has a "clean slate" to start from. Am concerned about continuous upgrades to the standards - would probably recommend implementing at some version, then freezing at that version and referencing the data dictionary to that specific version.
- A high level standards not linked to specific vendors or implementation models.
- If data acquisition and sharing among organizations is to occur, then, yes, a data dictionary or standard is needed.
- If what we hope to accomplish by developing a PA TSSDS is simply to accommodate the need to share data, what we should do is not just whole sale development of standards but rather focus on 1) the identification of the elements that need to be shared 2) the level of detail required for translation between systems.
- There needs to be some standards for data transfer and interagency communications, but I'm not so sure that we can all implement the same database schema without drastic changes in applications and internal structure. TSSDS is a good place to start for some of these standards, especially for those agencies who have a clean slate so to speak.

### **2. Which approach should be taken in achieving a PA "TSSDS"?**

- PaMAGIC should make a recommendation to general membership. Hold informational session at next conference.
- More consensus among the users in the state of Pennsylvania needs to be achieved before we can make a choice on standards and implementation. This sort of discussion needs to be brought up at PAGIS or PaMAGIC membership meetings.

#### **2.1 Approach 1: Define an all encompassing system to be used by all user**

- An authoritarian approach would require legislation which would be difficult
- There's nothing stopping the offering of standards. You could provide benefits to compliance. For example, offer additional points on a proposal to state agencies or municipalities.

## **2.2 Approach 2: Define a minimum set of documentation that conforms with the Federal Guidelines, leaving as much of the data base design and content up to each user**

- Need to define the minimum documentation of mandatory items to conform to Federal guidelines, then identify tools that can assist the user community in conforming to this minimum set. There is an obvious need for a database dictionary to be associated with the data transfer - this should either be the TSSDS or an internal data base dictionary unique to the organization.
- Drop phrase 'leaving....' and replace with 'allowing designers to pick and choose from the existing standard elements. Extensions should be unusual in the near term as DD becomes exhaustive.
- Remove " leaving ....user." ; and replace with " with broad authority to modify as needed. Realizing that over time modifications will be fewer.
- The most beneficial aspect of the TSSDS and any followup efforts is the emphasis on Metadata/Data Dictionaries. There is a real need to educate the GIS user community in this area.

## **2.3 Other Approaches**

- Incentives to adopt.
- Tie state and federal contracts to standards. If you want to work for them you must adopt.
- Educational -- teach standards in GIS classes to increase knowledgeable user community.
- PaMaGIC endorses and recommends use of TSSDS. Contacts state government for endorsement. Contacts GIS groups from other states.
- Demonstrate by example. Could a group of organizations voluntarily agree to adopt a starting point and show the benefits. If an organization receives a grant then one of the tasks should include a tie to using at least a core set of standards as defined by a consensus PaMAGIC

members. The Grantor would need to agree to PaMAGIC as the group recommending these standards.

### **3. Who should make policy decisions relative to spatial data standards in PA?**

- Not a state agency!
- Individual owners of the data.
- A collective group of professionals representing academic, private, and public sectors. There should be a series of drafts that are presented to the entire user community (at PA GIS or video conference), for validation and acceptance. Educational promotion, workshops, and outreach are needed to widely circulate and promote their use.
- PaMAGIC maybe a good candidate to make a recommendation (but not a policy) to those who would listen. PaMAGIC seems to be representative of a wide cross-section of professionals and therefore may be a credible voice.
- Forcing with a policy will probably ensure non-compliance.
- PaMAGIC would be a ideal organization to start the process. However, policy decisions on a state level would have to start at the top (Governor's office) I think that PaMAGIC could be a very visible force in driving that policy. The policy decisions, endorsed by PaMAGIC could work. The policy would not work without the user community support. PaMAGIC is that user community.

### **4. Who should be responsible for coordination with other states?**

- I would say the PA Topographic and Geologic Survey, but I know it means nothing would get done to the benefit of PA business and small government. Perhaps this is best done by a Governor's chartered citizen's advisory group (ie, PaMAGIC).
- PaMAGIC working task force could be charred with coordination with other federal and state organizations in order to benefit from lessons learned elsewhere.
- Representatives from PaMAGIC along with Kevin or a member of his organization.

### **5. What are the next steps for implementation of a spatial data standard in PA?**

- Build a case for the standard.
- Form a working group of professionals from public, private, and academic sectors working through PaMAGIC to perform background work in defining draft vision, and goals for metadata - these would be circulated to the user community for comment (PaMAGIC web site and perhaps video conference).
- Task force would coordinate with other states and Feds to gain additional insights into political, technological, and procedural issues to be investigated and addressed.
- Task force would then draft recommendations for minimum metadata standards for data transfer within Pennsylvania, and identify potential tools that could be used by the user community to assist in implementation (TSSDS may be one tool for developing and maintaining a data base dictionary).
- Tailor the existing CD to Pennsylvania's GENERAL needs (remove DOD data).
- Decide if the standard will apply to existing data and if so, to what extent.
- Stop talking among ourselves and make presentations at 'industry' meetings.

**6. It is now two years from now, there is still no spatial data standard in PA, Why?**

- Lack of leadership!
- Because we kept going 'round and 'round on the issue and never made a commitment.
- Standards too complex or expensive to implement and maintain.
- No leadership, organizations are unwilling to accept something that is less than a perfect fit for their needs.
- There won't be effective standards if there is neither a mechanism to enforce the standards (which there isn't) or incentive to comply. The ability to share data is an incentive, but it will not be sufficient to motivate compliance if compliance is not compatible with an organization's business purpose.

**7. Additional Comments**

- Yes. The goal should be an easy to use, set of voluntary standards that can be easily implemented for new databses.
- I think the TSSDS provides a good all-encompassing standard as a starting point for local development/implementation.
- There needs to be a Governor's Select Working Group (with emphasis on "Working") created to move the standards issue forward. This group needs the resources and authority to get the job done. I would like to see a combined federal, state, local gov't, business, and academic group.
- PaMaGIC should be the leader in this endeavor.
- The challenge for PAMagic is to create a non-enforceable standard. Due to the situation where not all organizations will participate in the standards creation process, a standard will be difficult to construct.
- Are there other groups that have approached similiar issues (standards) and have started an approach? Can we learn from thier example?
- The fact is that we are here because we understand the benefits of being able to exchange geo-spatial data between agencies in PA. In order to exchange data, we do need to document our data, ie create metadata standards, to the extent that is required for exchanging data. We also need to have a TSSDS-like data dictionary that describes the data elements that we want to share. What we need to focus on 1) what are the elements that are meaningful for us to exchange; and, 2) what do we need to know about them in order to be able to share them.
- PaMAGIC members start using standard, create the public perception that it is accomplished.

## **8. Why do we need to document data?**

- Data exchange between organizations.
- Continuity.
- Reliability.
- Organizations need to document their spatial data bases in order to achieve the following benefits:

- Maintain the usefulness of information within an organization. In a shared data base environment, it is important that all people using the data have knowledge about data base content and data credibility.
- To share data with other organizations in order facilitate.

**9. What do we want "The Center" to do for us?**

- Provide a modified for PA CD.